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ABSTRACT

Incoming freshman athletes (N=105) in revenue sports (e.g., football, basketball) and non-revenue sports (e.g., tennis, swimming) at the University of Maryland (College Park) were administered the Noncognitive Questionnaire (NCQ) at their initial fall orientation. The sample was 64% male, 80% White, 15% Black, and 4% Hispanic. The NCQ has been shown by T. J. Tracey and W. E. Sedlacek (1984) to have validity in predicting the success, particularly retention and graduation, of non-traditional students (e.g., cultural and racial minorities, international students). Three of the eight NCQ scales (support person, community, and self-concept) combined to predict first semester grade point average. Scores on the Scholastic Aptitude Test (SAT) had essentially no correlation with freshman grades. It was concluded that SAT scores should not be used to prevent athletes from competing in their first year. It was further suggested that thinking of athletes as traditional students in special circumstances may be doing them a disservice. It may be more meaningful to consider athletes as non-traditional students with their own cultures and problems in relating to the larger system. Other research identifying prejudice toward athletes supports this point. Suggestions are made for programs for athletes and others on campus. Three data tables are included. (Author/SLD)

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This study was done in cooperation with the Department of Intercollegiate Athletics and the Counseling Center.

Computer time was provided by the Computer Science Center, University of Maryland, College Park

COUNSELING CENTER
UNIVERSITY OF MARYLAND
COLLEGE PARK, MARYLAND

Predicting the Academic Success of Student-Athletes Using SAT and Noncognitive Variables

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SUMMARY

Incoming freshman athletes (N=105; 64% male) in revenue and nonrevenue sports at UMCP were administered the Noncognitive Questionnaire (NCQ) at their initial fall orientation. The NCQ has been shown to have validity in predicting the success, particularly retention and graduation, of nontraditional students (e.g. cultural/racial minorities, international students).

Results showed that the three of the eight NCQ scales (Support Person, Community and Self-Concept) combined to predict first semester GPA ($R=.45$; $p < .05$). SAT scores had essentially no correlation with freshman grades (Math $r = .02$, Verbal $r = .05$).

It was concluded that SAT scores should not be used to prevent athletes from competing in their first year.

It was further suggested that thinking of athletes as traditional students in special circumstances may be doing them a disservice. It may be more meaningful to consider athletes as nontraditional students with their own culture and problems in relating to the larger system. Research identifying prejudice toward athletes supports this point. Suggestions for programs for athletes and others on campus are made.

The admission of student-athletes to U.S. colleges and universities has been the subject of increased attention and heated debate in recent years. The controversy has moved from admissions offices and campus units to the public press. Much of the attention has been focused on the two National Collegiate Athletic Association (NCAA) propositions that limit participation of male student-athletes in their first year (Proposition 48) and their ability to receive financial aid (Proposition 42) based on their SAT or ACT scores. Many have additionally expressed concern because of the potentially even greater negative consequences for Black student-athletes than White student-athletes (Roper & McKenzie 1989).

Unfortunately there has been more talk than research on predicting the success of student-athletes. However, one can begin the search for answers with admissions research in general, and Black student admissions research in particular.

General Admissions Research

Standardized tests such as the SAT or ACT have been shown to correlate fairly well with freshman grades for White students in general. Predictions of grades beyond the first year, or for retention or graduation of White students using standardized tests, have not been good (Tracey & Sedlacek, 1984, 1985, 1987, 1988, in press). This is not a surprising conclusion in that tests such as the SAT were specifically designed to predict freshman grades and were normed on samples of traditional White students (Angoff & Dyer, 1971).

In more recent years attention has shifted to student retention and to a lesser extent graduation, and to grades beyond the first year (Tracey & Sedlacek, 1984, 1985, 1987, 1988, in press). Here the SAT has been used to make predictions beyond its intended purpose and it has failed in those efforts. One possible reason for this failure might be found in Sternberg's work on intelligence.

Sternberg (1985, 1986) suggests that there are three types of intelligence. Componential intelligence is the ability to interpret information in a hierarchical and taxonomic fashion in a well defined and unchanging context. People who do well on standardized tests such as the SAT have this type of intelligence. Experiential intelligence involves the ability to interpret information in a changing context; to be creative. Standardized tests do not measure this type of intelliegence according to Sternberg. Sternberg's third type of intelligence, he calls contextual, and has to do with the ability to adapt to a changing environment; the ability to handle and negotiate the system.

In a typical curriculum, one might expect componential intelligence to be most useful in early coursework where memorization and initial presentation of content in an area is made. Later coursework requiring synthesis, integration and creativity might require more experiential intellegence, while negotiating the system and figuring out how to stay in school

could be seen as requiring more contextual intelligence. The important point is that standardized tests were never intended to, and apparently do not, measure experiential and contextual intelligence.

Admission of Blacks

There are even more difficulties in using standardized tests in predicting the success of Black students than of White students. Many studies have shown that correlations with first year grades are worse for Blacks than Whites. There is little or no relationship of tests such as the SAT to Black student grades beyond the first year, or to retention or graduation (Sedlacek, 1987, 1989; Tracey & Sedlacek, 1984, 1985, 1987, 1988, in press; White & Sedlacek, 1986).

So why do we have a big problem? at least it correlates to some extent with freshman grades; can't we use the SAT anyway and just lower the scores required of Blacks? The answer is that this raises a host of issues relating to fairness, equity and racism. The first problem is that studies have shown that Blacks may take longer to adjust to college, particularly a predominantly White school, than White students (Fleming, 1984, Sedlacek, 1987). If we try to predict Black student performance before it has stabilized we are engaging in a classic form of racism. We are using a criterion that favors Whites in that White students are relatively more predictable in their first year than Blacks. Statistically, this means that we will make relatively fewer errors in selecting Whites using a first year

criterion than we will in selecting Blacks. Predicting only first year peformance has been identified as one of seven major types of bias in admission research (Sedlacek, 1986).

So why can't we solve the problem by accepting lower scores for Blacks? Because lowering a score on an invalid test does not give us better prediction. Let's use an analogy. Suppose we were to use weight as our selection test for entering college; the heavier you are the more likely you are to get in. But we conclude that because women are not as heavy we will simply lower the weight required to let women in. We are still selecting women on an invalid basis no matter how much we lower the standard.

A second and potentially even larger problem in lowering scores required for Blacks, or any group, is what it does for ones' self concept. There is evidence that how minority students feel about their abilities to succeed in college as they start is critical to their success (Sedlacek, 1987, 1989. Tracey & Sedlacek, 1984, 1985, 1987, 1988, in press; White & Sedlacek, 1986). If they are told that they are not as good as other students, but they are being admitted anyway, this adds to one of the persistent and summative consequences of racism; a devaluation of ones' true abilities.

Nontraditional Students

Much evidence has been generated in recent years that the concept of traditionality may be a useful one to consider in making admissions or postmatriculation decisions about students

(Sedlacek, 1977, 1987, 1989). To the extent that nontraditional students have not had the experience of typical middle or upper-middle class White students in the education system we likely need to assess these nontraditional experiences to be able to make more accurate predictions and be fair to those students.

A system of assessing noncognitive variables is shown in Table 1. These eight variables have been shown to predict the success of nontraditional students in higher education including freshman grades, upper-class grades, retention and graduation (Bandalos & Sedlacek, 1989; Boyer & Sedlacek, 1988; Sedlacek, 1977, 1987, 1989; Sedlacek & Brooks, 1976, Sedlacek & Prieto, 1982, in press; Tracey & Sedlacek, 1984, 1985, 1987, 1988, in press; Westbrook & Sedlacek, 1988; White & Sedlacek, 1986).

The set of variables appears to have validity because it assesses Sternberg's experiential and contextual types of intelligence.

Might it be useful to think of student-athletes as nontraditional students? Might their prior experiences in the system serve to differentiate them from their apparent peers? Might we learn something by predicting their success in college using noncognitive variables? Do noncognitive variables predict the success of student-athletes better than the SAT? The purpose of the present study was to answer these and related questions for a sample of student-athletes at a large university.

Method

All the incoming freshman athletes (N=105) at a large eastern university with an NCAA Division I Athletic program completed the Noncognitive Questionnaire (NCQ) at their initial fall orientation. The NCQ measures the variables shown in Table 1 and has been shown to have test-retest reliability of .85 (Tracey & Sedlacek, 1984) and validity in predicting grades, retention and graduation for a variety of nontraditional students, as noted above. The sample was 64% male, 80% White, 15% Black and 4% Hispanic and represented revenue (e.g., football, basketball) and nonrevenue (e.g. tennis, swimming) sports.

The NCQ and SAT scores were used to predict first semester grades using multiple regression.

Results

Table 2 shows means, standard deviations and zero order correlations of each predictor with the criterion. As individual predictors, the NCQ scales of Strong Support Person, Positive Self-Concept, Realistic Self-Appraisal and Community Involvement all had significant ($p < .05$) correlations with first semester grades. SAT Math and SAT Verbal scores showed essentially zero correlations with first semester grades.

The student-athletes in the sample looked similar to norm groups of Black students on the NCQ with highest scores on Leadership and Nontraditional Knowledge, and lowest scores on

Handling Racism and Long Range Goals, with all NCQ means in an average range.

Table 3 shows that the three noncognitive variables Strong Support Person, Community Involvement and Positive Self-Concept combined in predicting first semester grades with a multiple correlation of .45, which was significant beyond the .05 level.

Discussion

The results clearly demonstrate that the NCQ correlates with first semester grades for student-athletes and the SAT does not. There are many possible implications for student service professionals, educators and administrators working with student-athletes.

First, SAT scores should not be used in selecting or predicting the early success of student-athletes. Propositions 48 and 42 cannot be fairly implemented using SAT scores if these results are at all true at other institutions. The school studied would be doing a great disservice to its student-athletes if the SAT were used to deny the right of any student-athlete to compete in the first year. The correlations of the NCQ and SAT with first semester grades are particularly interesting since the strength of the SAT should be in predicting first semester grades, whereas the strength of the NCQ is in predicting upper-class grades, retention and graduation.

The particular scales of the NCQ that predicted best have to do with feeling confident about yourself, and having support from an individual and a community, and are worth further comment.

Being a successful athlete has put many athletes in highly visible and difficult to handle circumstances: successes and failures can be magnified, and are more apt to be noticed by many. It appears that student-athletes who have learned to succeed by looking to themselves as well as others (e.g., perhaps parents, teachers, coaches and teammates) are the ones who succeed.

Postmatriculation programs that seek to provide support people, communities, either teammates or others on campus, and provide student-athletes with self-concept development may be particularly fruitful in the first semester. As student-athletes progress in school other noncognitive variables may become relatively more important, as is the case with studies on nontraditional students (see Tracey & Sedlacek, 1984, 1985, 1987). Longitudinal research should be conducted to observe these changing relationships over time.

Another implication of the results has to do with how we should perceive student-athletes. The word student-athlete itself has been promoted by many as a reminder that these people are students like everyone else who happen to be playing a sport. While well intended, such a view may be doing harm to student-athletes. The evidence from this study suggests that student-athletes look more like other nontraditonal students and may suffer from many of the problems and frustrations of a "minority group". Engstrom & Sedlacek (1989) provide evidence that there

is prejudice against student-athletes, much like that directed toward Blacks, women or other groups receiving discrimination.

Rather than thinking of athletes as traditional students in nontraditonal circumstances, it may be more meaningful to consider athletes as nontraditional students with their own culture and problems in relating to the larger system. There is some precedence for this view. Roper & Sedlacek (1988) discuss a course on racism in which students are encouraged to compare and contrast various "isms" (e.g. sexism, ageism); one of which is "athletism".

Programs for athletes could help them understand how they may be viewed by others and how to negotiate a system that was not designed for them (Sedlacek, 1988). Additionally, programs for non-athletes could emphasize reducing the prejudices and forms of "athletism" that are present in higher education. Methods of reducing such prejudices have been shown to be useful in classroom settings (Roper & Sedlacek, 1988), orientation programs (Sedlacek, Troy & Chapman, 1976), workshops for professionals (Westbrook & Sedlacek, 1988) and through campus-wide and community activities (Sedlacek & Brooks, 1976).

There appears to be enough evidence in the popular press and in emerging research to suggest that we need to reevaluate our perspectives and programs for athletes in higher education. We need to do more than assume the athletic department is somehow handling problems that affect all student affairs professionals.

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Table 1

NON-COGNITIVE ADMISSIONS VARIABLES

I. POSITIVE SELF-CONCEPT OR CONFIDENCE. Strong self-feeling, strength of character. Determination, independence.

II. REALISTIC SELF-APPRAISAL, especially academic. Recognizes and accepts any deficiences and works hard at self-development. Recognizes need to broaden his/her individuality.

III. UNDERSTANDS AND DEALS WITH RACISM. Realist based upon personal experience of racism. Is committed to fighting to improve existing system. Not submissive to existing wrongs, not hostile to society, nor a "cop-out." Able to handle racist system. Asserts school role to fight racism.

IV. PREFERS LONG-RANGE GOALS TO SHORT-TERM OR IMMEDIATE NEEDS. Able to respond to deferred gratification.

V. AVAILABILITY OF STRONG SUPPORT PERSON to whom to turn in crises.

VI. SUCCESSFUL LEADERSHIP EXPERIENCE in any area pertinent to his/her background (gang leader, sports, noneducational groups, etc.)

VII. COMMUNITY INVOLVEMENT. Has involvement in his/her cultural community.

VIII. KNOWLEDGE ACQUIRED IN A FIELD. Unusual and/or culturally-related ways of obtaining information and demonstrating knowledge. Field itself may be non-traditional.

Table 2

Means, Standard Deviation and Zero Order

Correlations with First Semester Grades

Variable	Mean*	SD	r with GPA
SAT Math	520	84	.02
SAT Verbal	448	78	.05
NCQ			
Self-Concept	49	10	.28**
Realistic Self-Appraisal	53	10	.26**
Understanding Racism	47	10	.11
Long Range Goals	48	10	.13
Support Person	51	10	.30**
Leadership	59	10	.20
Community	50	10	.26**
Nontraditional Knowledge	59	10	.17
First Semester GPA	2.28	.86	

*T Scores for NCQ means (Mean=50, SD=10) based on Black student norms in Tracey & Sedlacek (1984)

**Significant beyond .05

Table 3

Significant Predictors of First

Semester Grades Using Multiple Regression

Step	Variable	R
1	NCQ Support Person	.30*
2	NCQ Community	.40*
3	NCQ Self-Concept	.45*

*Significant beyond .05